

Effects of Short Rotation Silvicultural Systems on Environmental Attributes: A Watershed-Scale Experiment

Interflow Collector design and installation

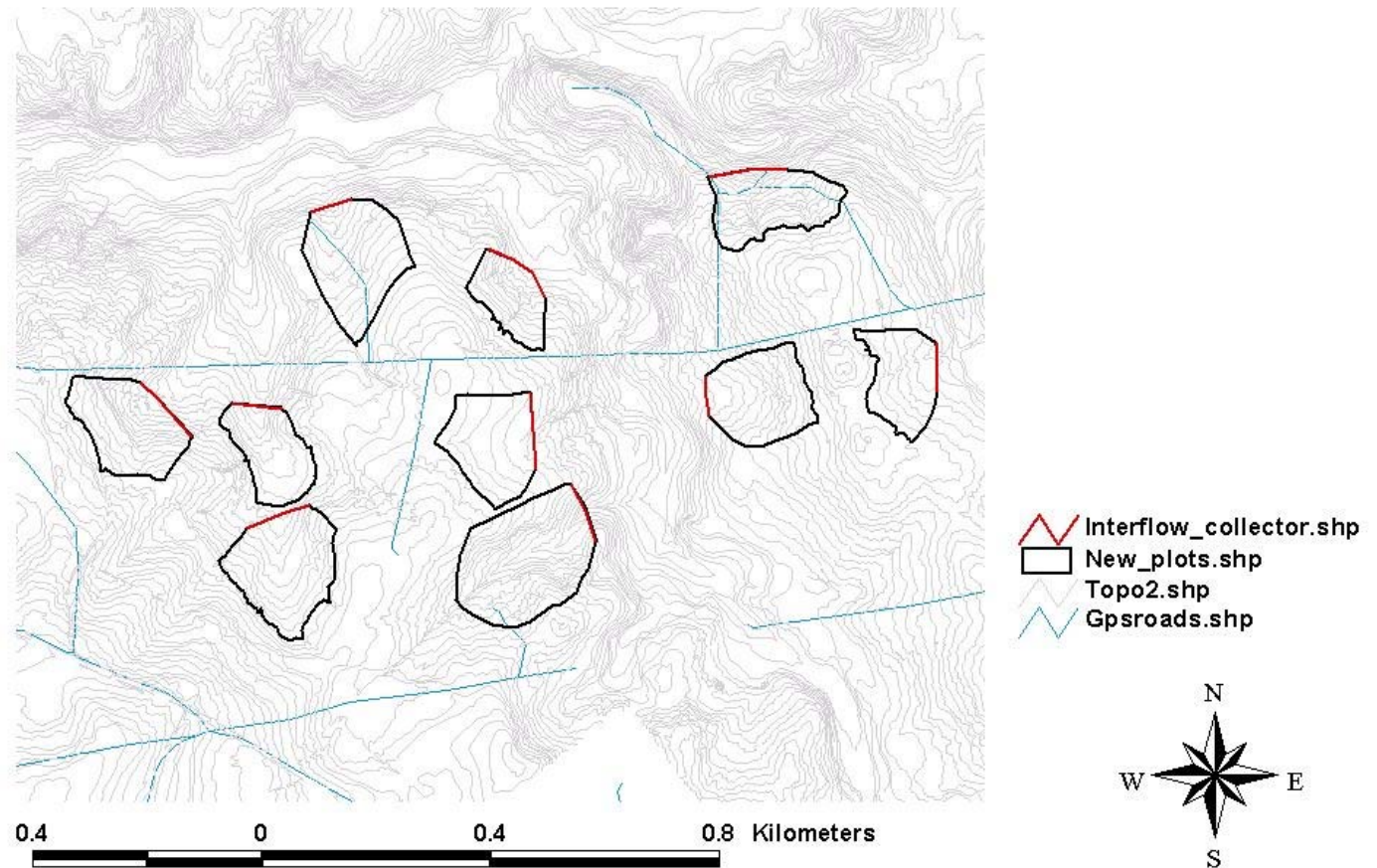
Interflow Collectors

Figure 1

Interflow collectors are being installed at the base of 10 catchments on the Savannah River Site.

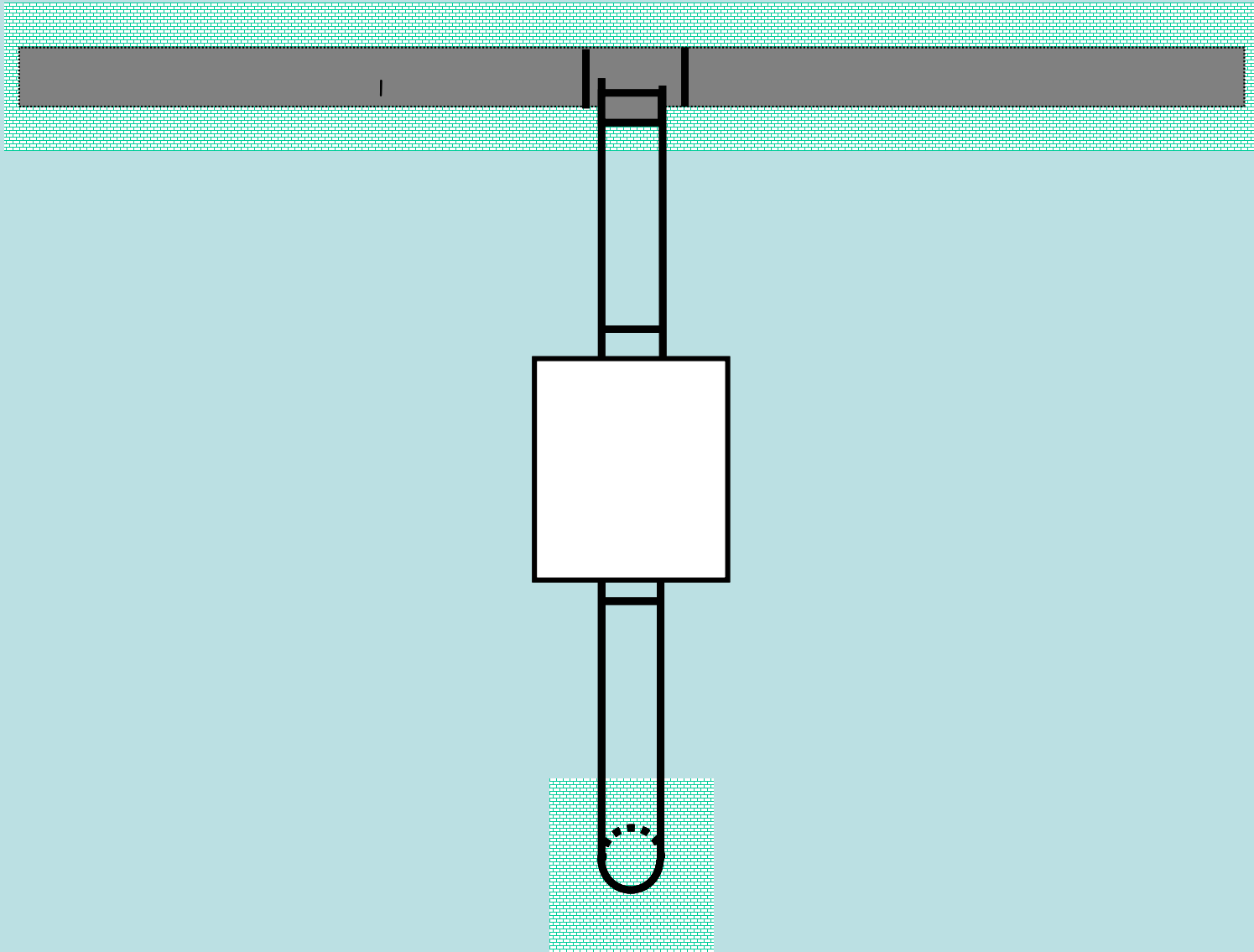
The objective is to capture storm water runoff draining out of catchments along the surface of the argillic horizon.

Study Site for Experiment B



Top View

Figure 2



A perforate drain pipe will be installed at the base of the sandy surface soil horizon along the length of the collector. A level logger automatically records flow events through a stilling well.

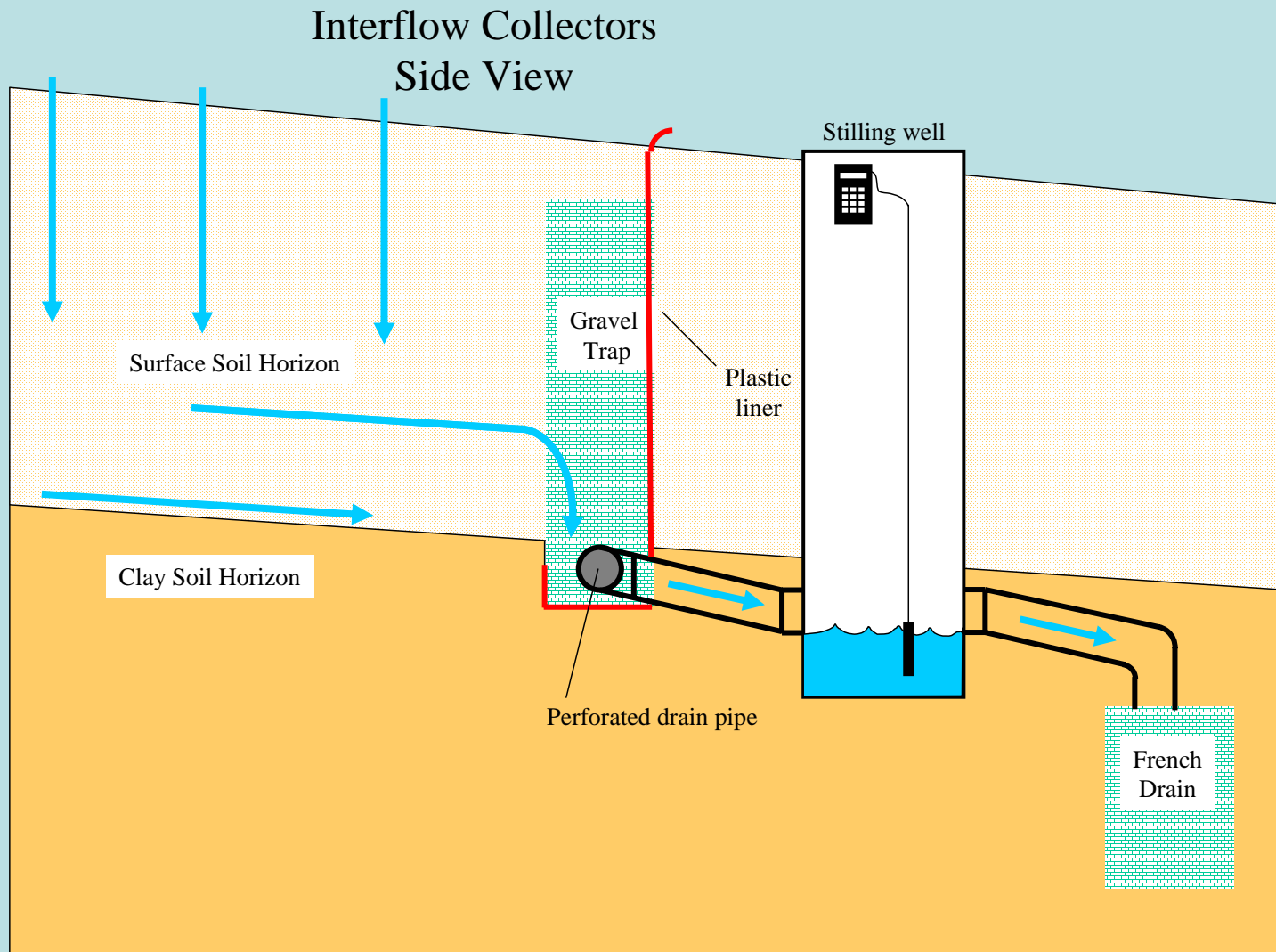
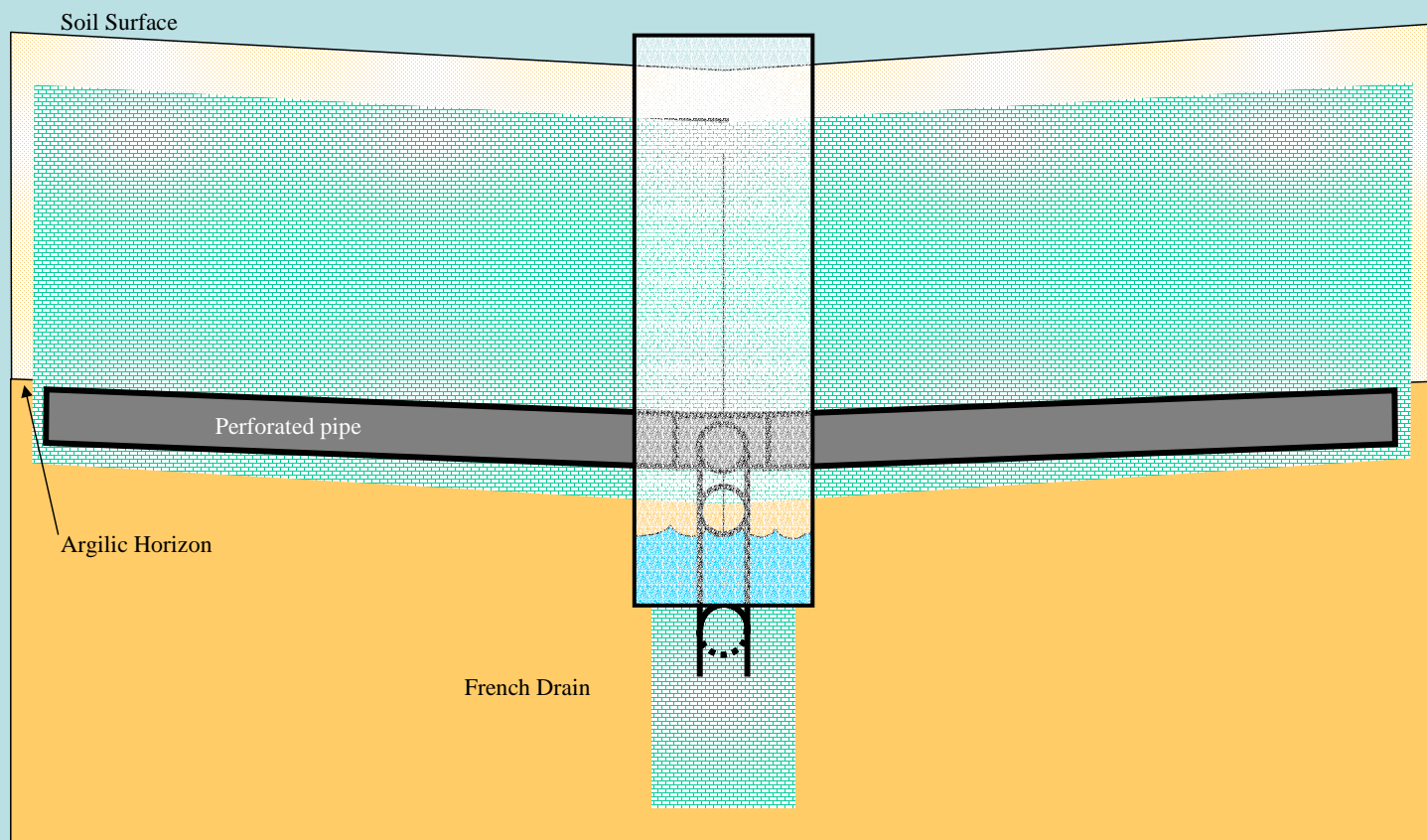


Figure 3

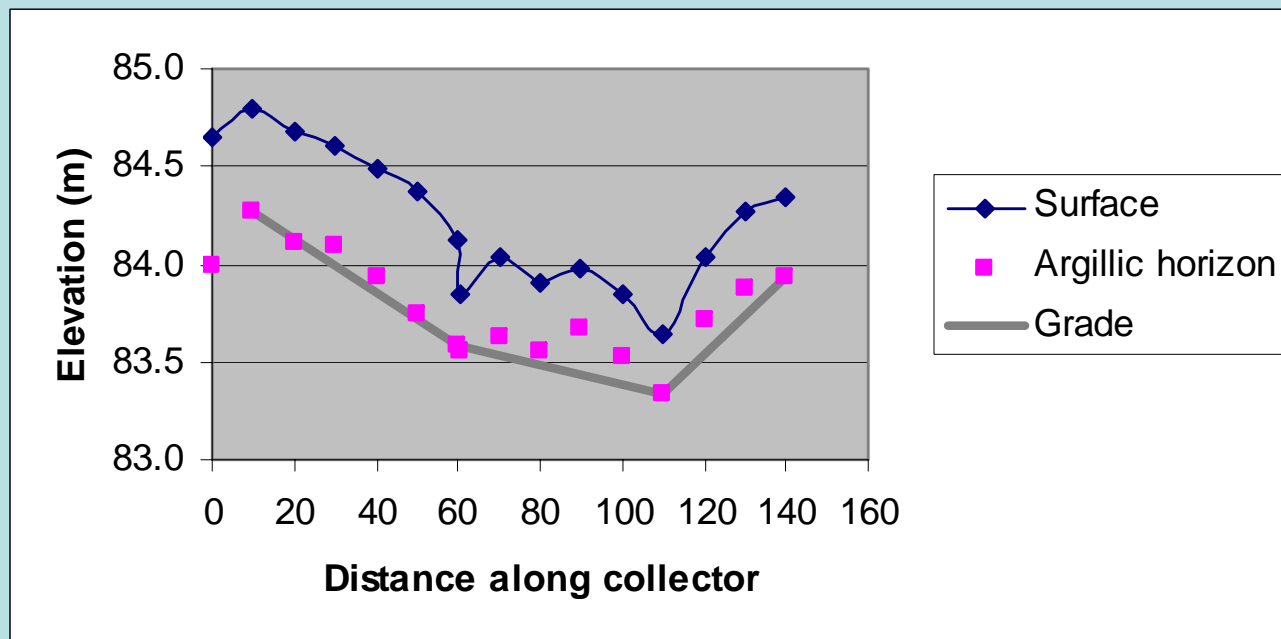
Front View




A prototype collector was installed in plot 3.

Plot Elevation (m)		Plot area	
Δ	3.69	32171	m ²
max	87.33	7.94	acres
min	83.64		

The depth to clay was determined by coring at 10 m intervals along the collector transect.



argillic depth (m)	
mean	0.44
std dev	0.12



•Plot 3:
Collector
location was
cleared of trees

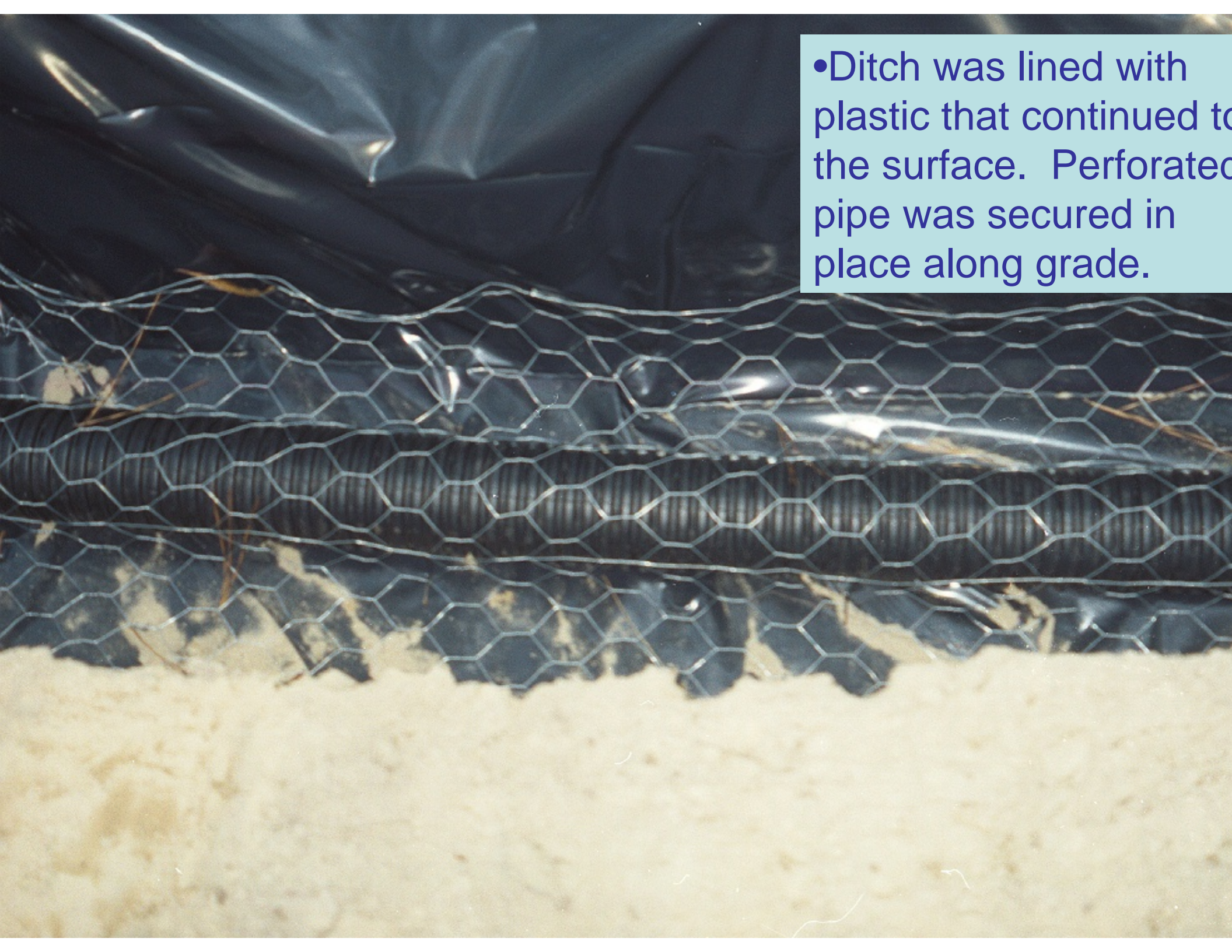
- Ditch was excavated to precise grade.



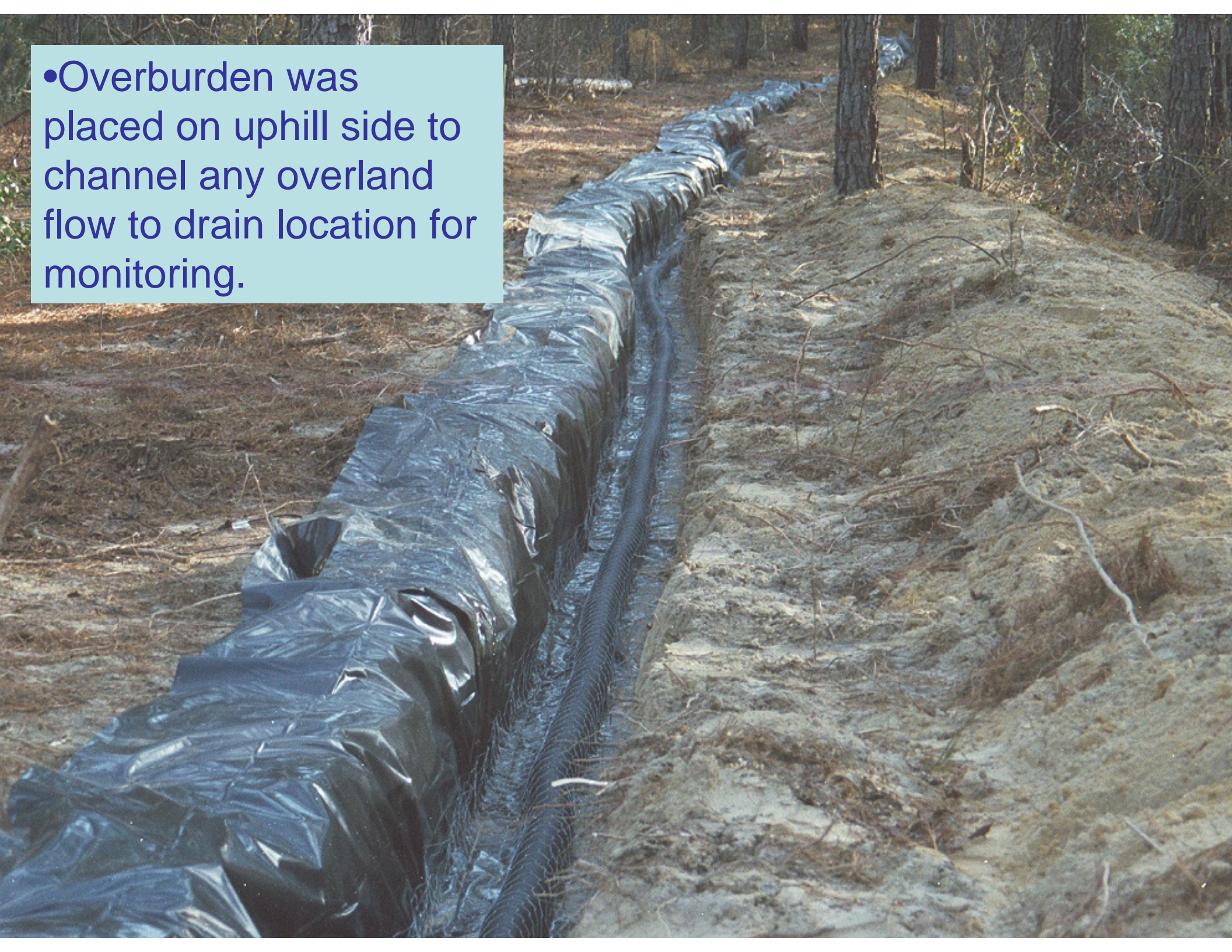
- Outlet for flow metering was placed at lowest elevation.



- Ditch was lined with plastic that continued to the surface. Perforated pipe was secured in place along grade.



- Overburden was placed on uphill side to channel any overland flow to drain location for monitoring.





- Ditch was filled with surplus roofing gravel (contains some tar).
- Ditches deeper than a half meter will have soil covering the gravel.
- In all ditches the plastic liner will continue to the surface.

- Outlet drain prior to installing stilling well.



- Stilling well installed.

